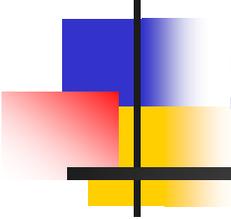


# Liquidity and Credit Risk Management During and After the Crisis

14<sup>th</sup> Bank Research Conference

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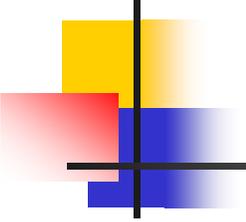
Discussion by  
**Mitchell A. Petersen**  
Kellogg School of Management &  
National Bureau of Economic Research



# Loan Sales and Bank Liquidity Risk Management: Evidence from the Shared National Credit Program

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Rustom Irani, Ralf Meisenzahl,  
and Sadra Moghadam

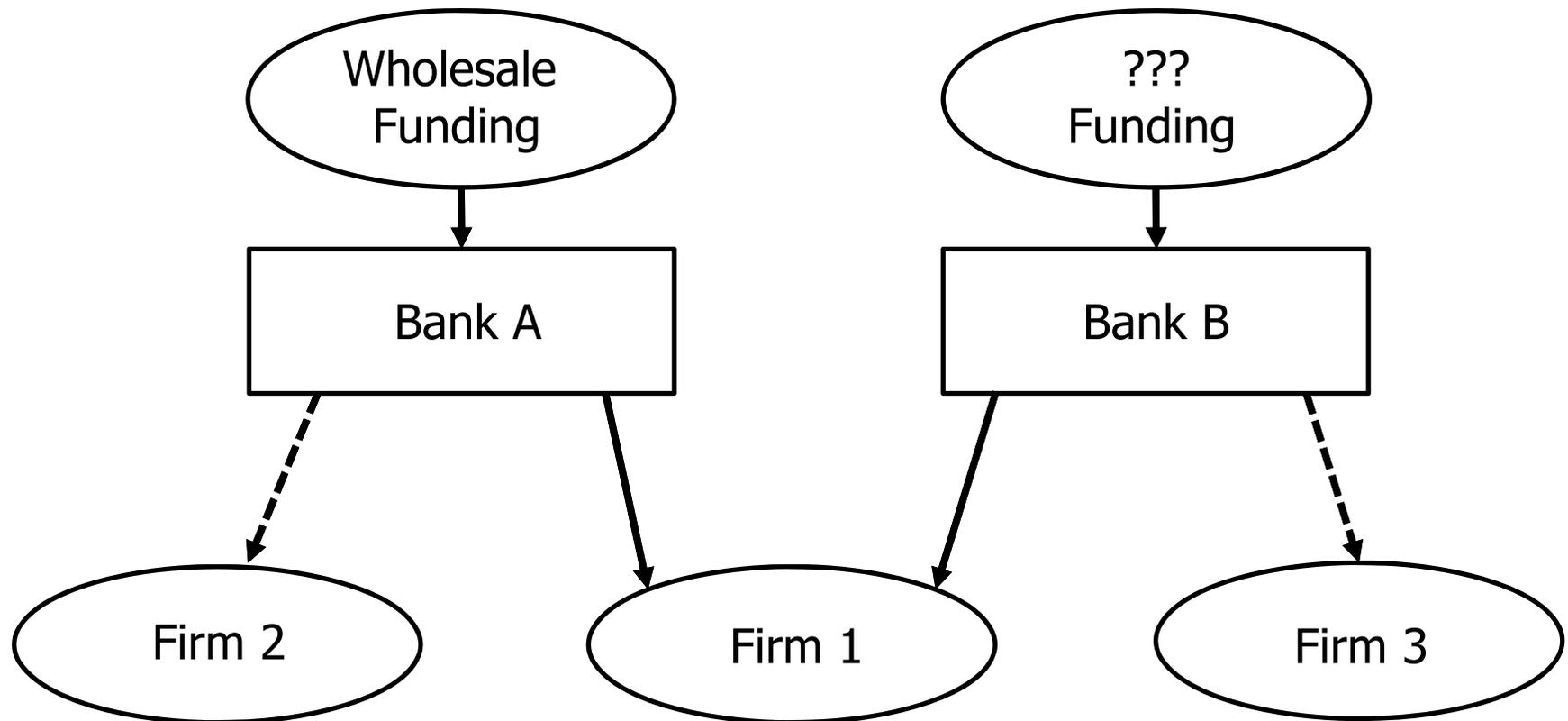


# Empirical Design: Demand or Supply

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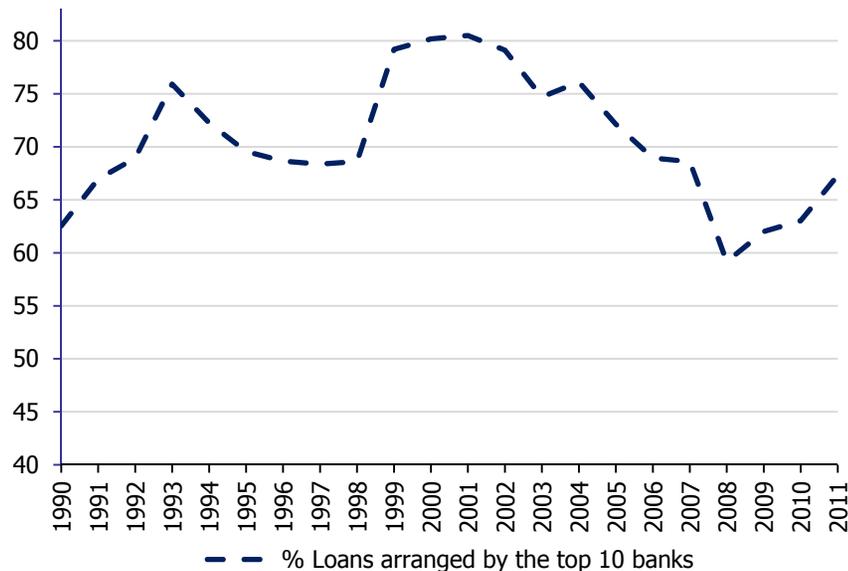
- Reduction in Wholesale Funding
- Changes in Demand
  - Match by loan (Same firm: 2 banks)
  - Hold investment by borrower constant
  - Changes in other investment opportunities

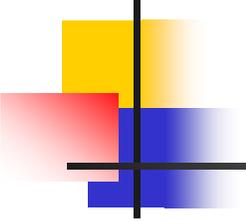
# Changes in Demand or Supply



# Changes in Syndicated Market (2000-2008)

- Growth by New Players
  - Bank share declines: 89% to 75%
  - Market Share of top 10 declines (Figure 4)

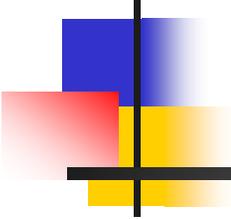




# Standard Errors: Diagnostics

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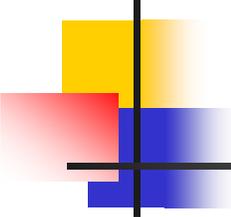
- Three Possible Cluster Dimensions
  - Loan -Yes
  - Bank - No
  - Year – No “Clustering by time is particularly important in our setup, because we are interested in the effect of a macroeconomic variable, which impact is correlated across lenders at a given point in time.” [Aramonte, Lee, and Stebunovs]
- Diagnostics
  - Compare White to Clustered by ???



# Risk Taking and Low Longer-term Interest Rates: Evidence from the U.S. Syndicated Loan Market

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Sirio Aramonte, Seung Jung Lee,  
and Viktors Stebunovs,



# Great Policy Question

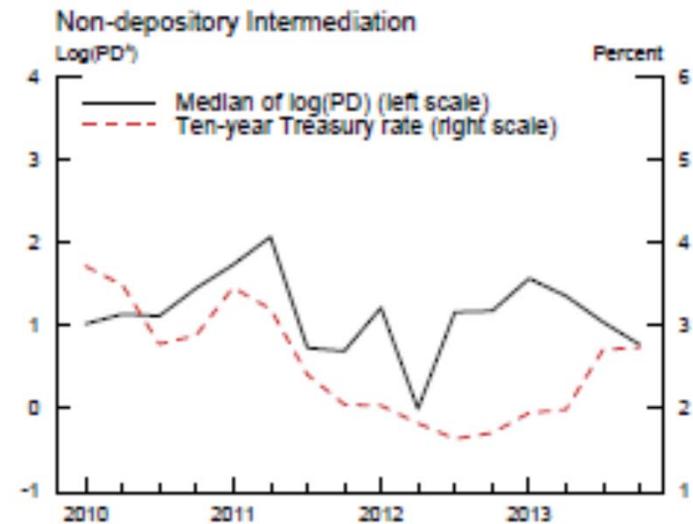
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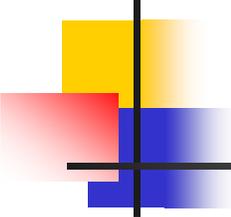
- Low Risk-free → Increased Risk Taking
  - Discount Rate Declines & Expected Return Constant (cash flow constant).
  - Different Risk: Default not just systematic
  - Monetary Policy

“One purpose of this support (for the economy with low interest rates) is to prompt a return to the productive risk-taking that is essential to robust growth and to getting the unemployed back to work.” Ben Bernanke, March 1, 2013

# Bank Taking on More Risk as Treasury Rates Decline

Figure 4 “suggests that nonbank lenders have increased their risk taking in terms of syndicated term-loan originations or purchases relative to bank participants,..”





# Main Regression

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- Regress Pr(Def) Treasury Rates

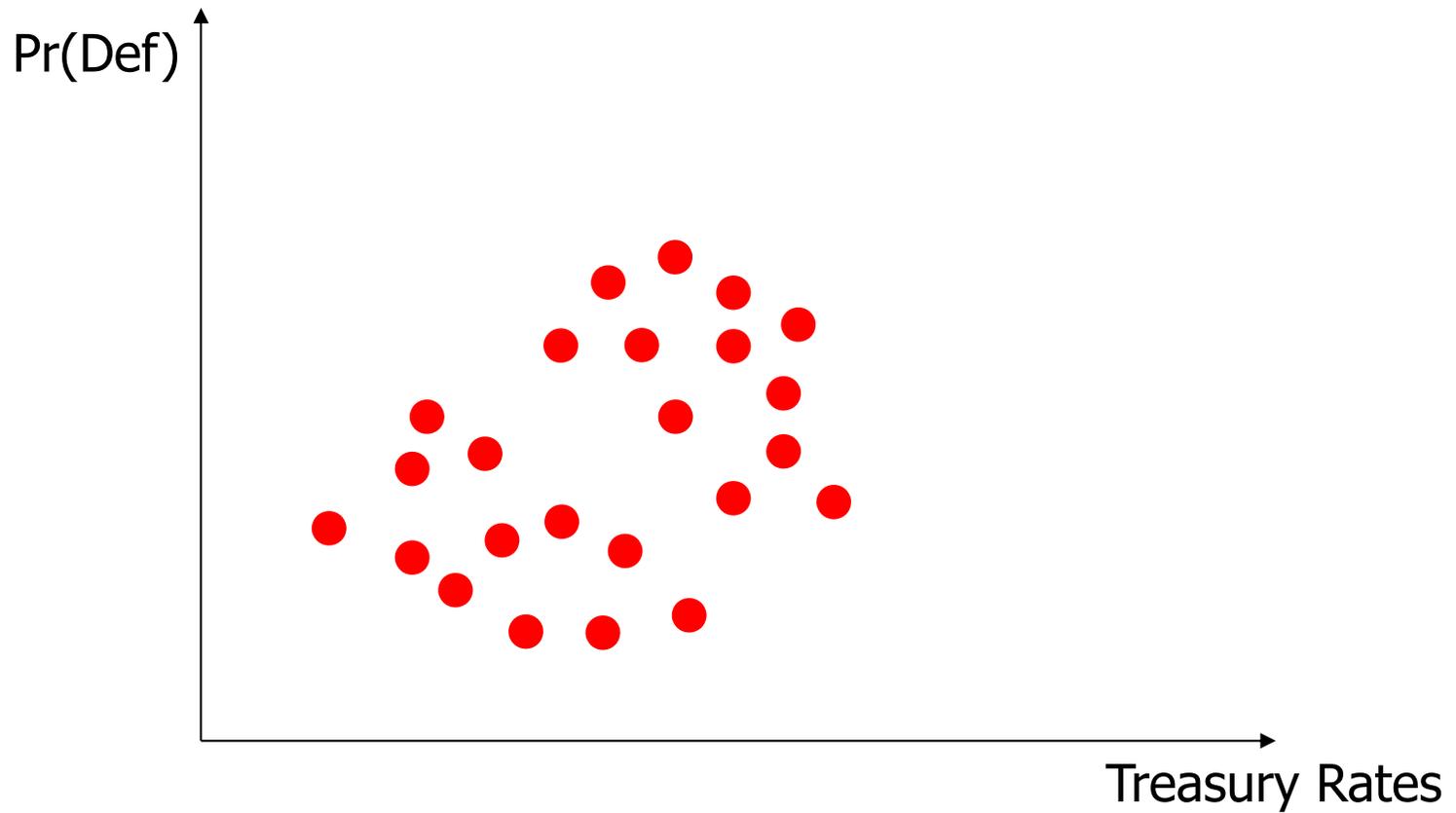
$$\log\left(\Pr\left[\text{Default}_{it}\right]\right)=\beta_{\text{bank}}I_{\text{bank},i}T_t+\beta_{\text{nonbank}}I_{\text{nonbank},i}T_t$$
$$+\text{Controls}_{\text{bank}}+q_{\text{bank},y}+q_{\text{nonbank},y}+\varepsilon_{it}$$

- Risk Sensitivity to Rates:  $\beta$  [Table 4]

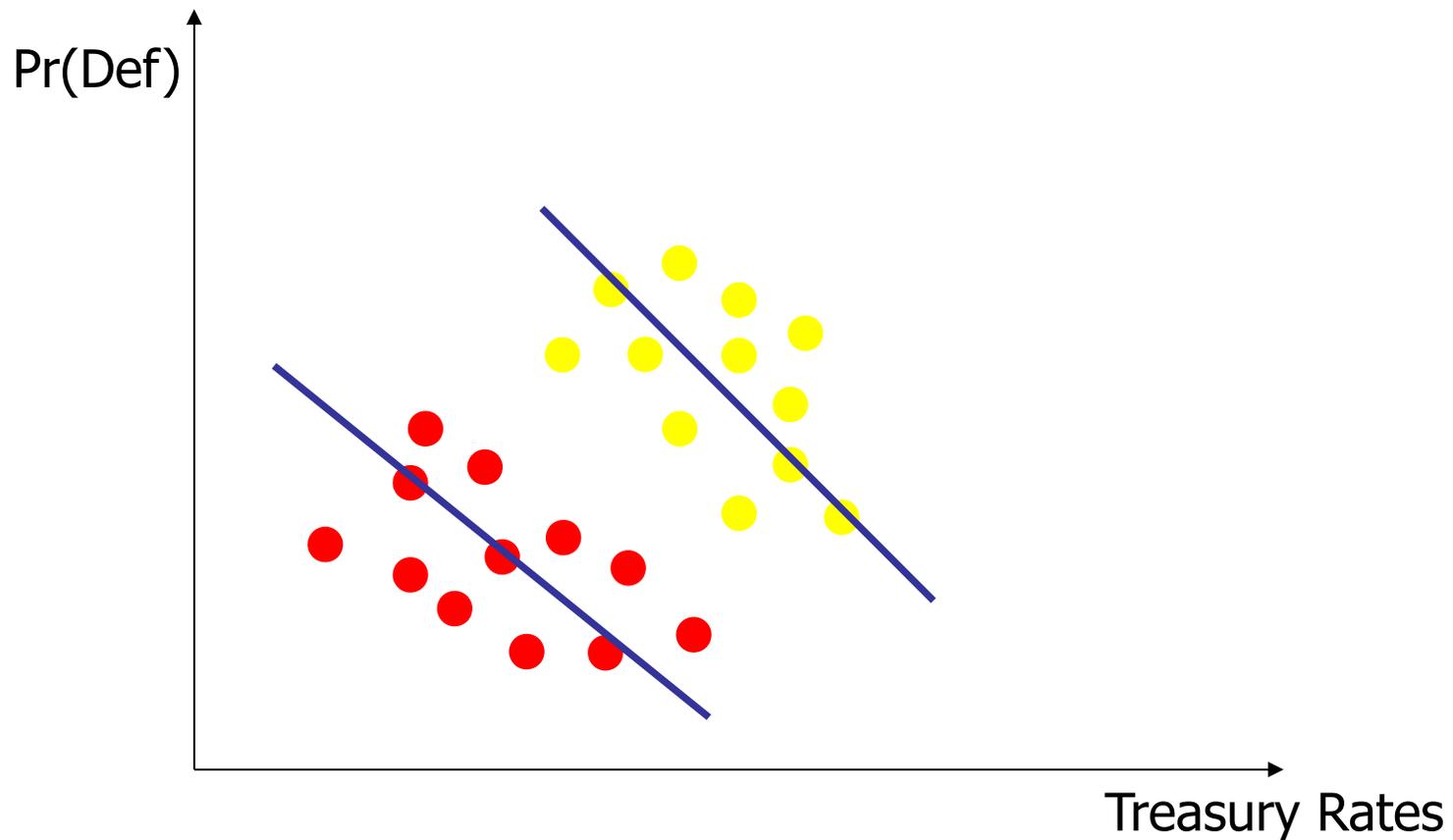
- Differs by sector: banks vs. non-banks
- Sector-year (y not t) dummies.

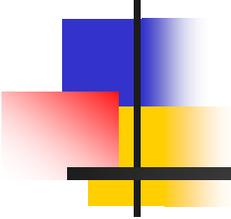
“The presence of the  $q_{j,y}$  should take care of unobserved common factors affecting lenders' behavior... for a particular year.”

# Estimating Beta using Total Variation



# Estimating Beta using Only Within Year Variation

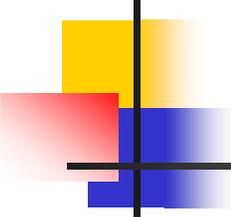




# Measuring Liquidity Mismatch in the Banking Sector

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Jennie Bai, Arvind Krishnamurthy,  
And Charles-Henri Weymuller

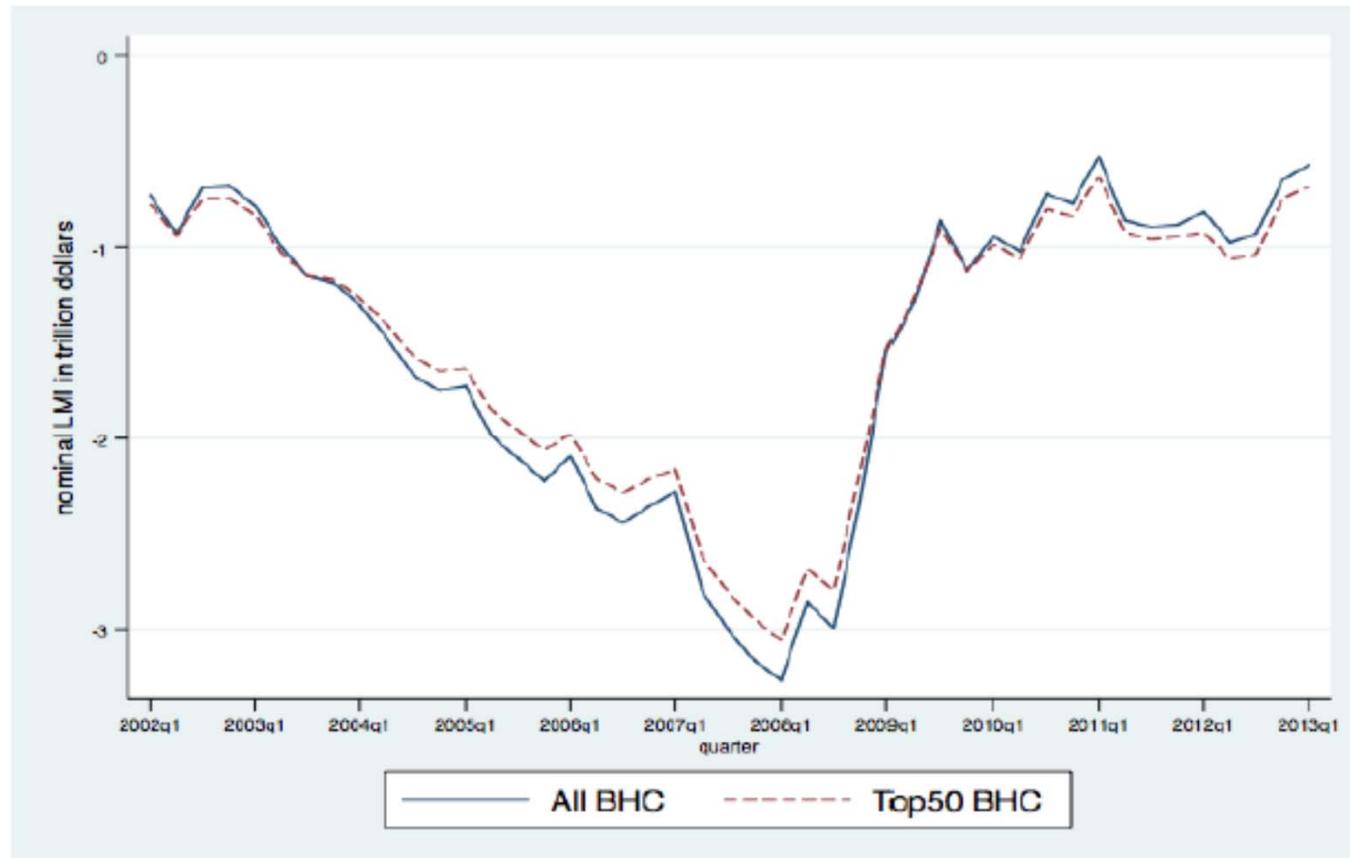


# Liquidity Mismatch index

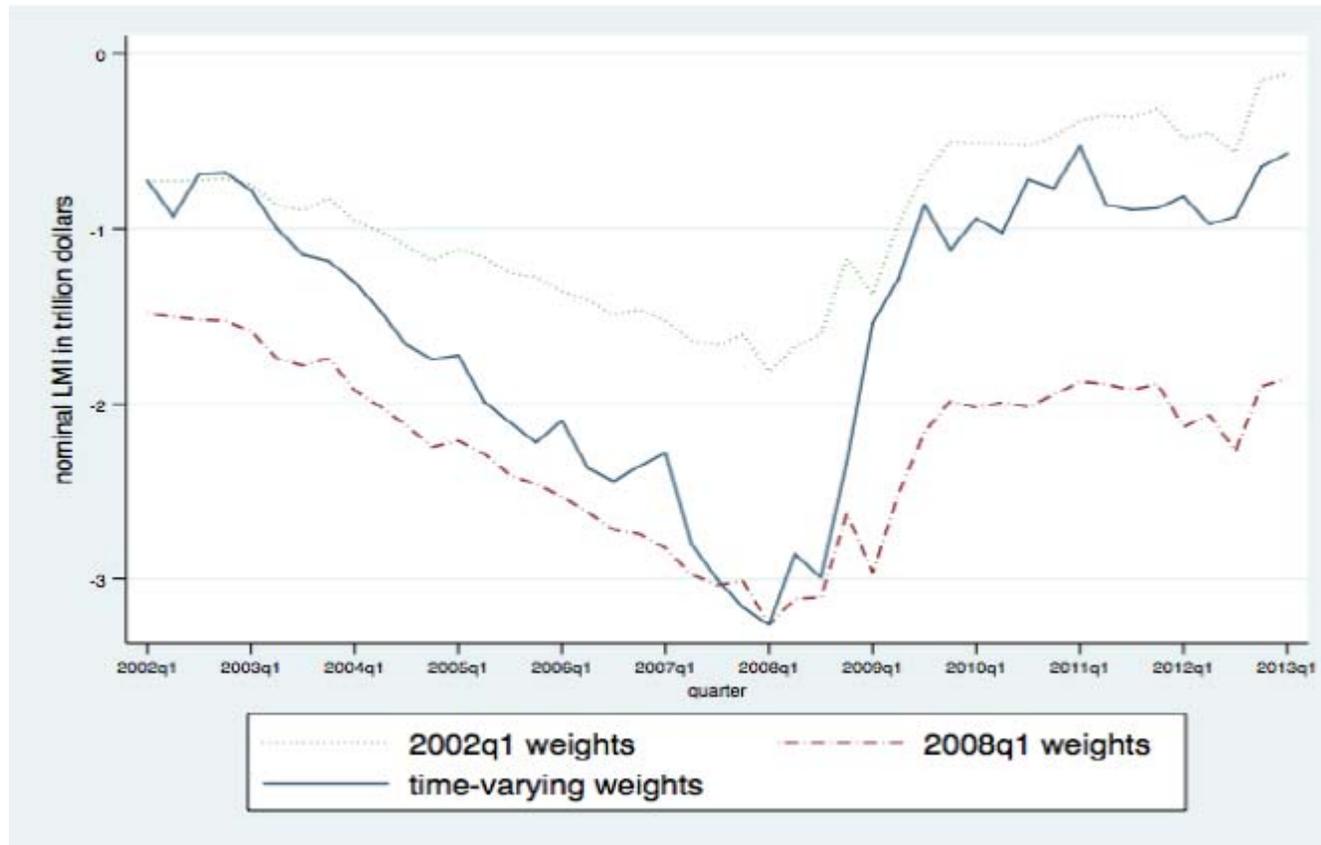
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“Liquidity is important. Yet, despite its importance there is no consensus on how to measure liquidity. Indeed, the only consensus is that liquidity is a slippery concept and is hard to measure.”

# Aggregate Variation in LMI



# Decomposing Variation in LMI



# Increasing Dispersion of LMI

or....

